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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/840,954	04/24/2001	John Zhu	50P4401.01	5639

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SUITE 3120
SAN DIEGO, CA 92101

EXAMINER	
LANIER, BENJAMIN E	

ART UNIT	PAPER NUMBER
2132	

DATE MAILED: 11/22/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/840,954	ZHU ET AL.	
	Examiner	Art Unit	
	Benjamin E Lanier	2132	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) 1-30 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) 1-30 is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on 24 April 2001 is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 4 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 4 recites the limitation "the information" in line 1. There is insufficient antecedent basis for this limitation in the claim. For the purposes of examination it will be assumed that "the information" recited in claim 4 refers to "information unique to the session" from claim 1.

Claim Objections

A series of singular dependent claims is permissible in which a dependent claim refers to a preceding claim which, in turn, refers to another preceding claim.

A claim which depends from a dependent claim should not be separated by any claim which does not also depend from said dependent claim. It should be kept in mind that a dependent claim may refer to any preceding independent claim. In general, applicant's sequence will not be changed. See MPEP § 608.01(n).

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-3, 5, 8, 9, 18, 22, 23 are rejected under 35 U.S.C. 102(e) as being anticipated by Ali-Laurila, U.S. Patent No. 6,587,680. Referring to claims 1-3, 18, Ali-Laurila discloses an IP based wireless network using IPSEC level security between wireless terminals, which meets the limitation of plural client devices and an application component, and network elements (Col. 5, lines 7-14). The system provides an efficient method for re-establishing an existing security association when a handover event occurs between a new access point, which meets the limitation of plural link terminals, and a mobile terminal (Col. 5, lines 19-25). Authentication of the mobile terminal during handover is achieved by a challenge/response procedure involving authentication keys for both ends of the communication pair that are generated by a key management protocol, which meets the limitation of logic at at least one local link terminal for generating the shared secret. Security associations are also used during the authentication and communication process to avoid the need for a new and different key exchange during each handover (Col. 5, lines 43-50). The system also includes a security protocol that uses a session-dependent dynamic key that is included as a part of the active security associations (Col. 4, lines 56-62), which meets the limitation of receiving IP packets therefrom in respective sessions, at least some IP packets being associated with information unique to the session, each session being associated with a unique shared secret between a client device and a link terminal communicating therewith, the information being useful in providing data from the application component in IP packet format from the NOC to a client device moving relative to the link

terminals by providing at least one IP packetized data stream to the client device using a first link terminal and then continuing to provide the data stream to the client device from a second link terminal as the client device movies.

Referring to claim 5, Ali-Laurila discloses access points are connects to an external communication network backbone (Col. 6, line 65 – Col. 7, line 2, which meets the limitation of a base station. Other communication devices such as communication stations are typically coupled to the backbone to form communication paths between a mobile terminal and the communication stations directly or indirectly to the network backbone (Col. 7, lines 2-14), which meets the limitation of data centers.

Referring to claim 8, Ali-Laurila discloses in Fig. 1 that the mobile devices have an antenna and transceiver (Col. 6, lines 52-54).

Referring to claims 9, 22, Ali-Laurila discloses a data transmission rate of typically 25 megabytes per second (Col. 1, lines 58-59).

Referring to claim 23, Ali-Laurila discloses that the service can be a subscription service (Col. 1, lines 34-39).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 7, 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ali-Laurila, U.S. Patent No. 6,587,680, in view of Rautila, U.S. Patent No. 6,549,625. Referring to claims 7, 24, Ali-Laurila discloses an IP based wireless network using IPSEC level security between wireless terminals, which meets the limitation of plural client devices and an application component, and network elements (Col. 5, lines 7-14). The system provides an efficient method for re-establishing an existing security association when a handover event occurs between a new access point, which meets the limitation of plural link terminals, and a mobile terminal (Col. 5, lines 19-25). Authentication of the mobile terminal during handover is achieved by a challenge/response procedure involving authentication keys for both ends of the communication pair that are generated by a key management protocol, which meets the limitation of logic at at least one local link terminal for generating the shared secret. Security associations are also used during the authentication and communication process to avoid the need for a new and different key exchange during each handover (Col. 5, lines 43-50). The system also includes a security protocol that uses a session-dependent dynamic key that is included as a part of the active security associations (Col. 4, lines 56-62), which meets the limitation of receiving IP packets therefrom in respective sessions, at least some IP packets being associated with information

unique to the session, each session being associated with a unique shared secret between a client device and a link terminal communicating therewith, the information being useful in providing data from the application component in IP packet format from the NOC to a client device moving relative to the link terminals by providing at least one IP packetized data stream to the client device using a first link terminal and then continuing to provide the data stream to the client device from a second link terminal as the client device movies. Ali-Laurila does not disclose location based services being provided by the system. Rautila discloses a wireless communication system wherein location based services are provided to a wireless terminal or device (Col. 2, lines 13-18). It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide location based services in the wireless network of Ali-Laurila in order to provide subscribers with important information about their current location as taught in Rautila (Col. 1, line 34-65).

Claims 4, 6, 10, 12-15, 17, 19-21, 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ali-Laurila, U.S. Patent No. 6,587,680, in view of Demoff, U.S. Patent No. 6,456,984. Referring to claims 4, 6, 10, 13-15, 19-21, 25, Ali-Laurila discloses an IP based wireless network using IPSEC level security between wireless terminals, which meets the limitation of plural client devices and an application component, and network elements (Col. 5, lines 7-14). The system provides an efficient method for re-establishing an existing security association when a handover event occurs between a new access point, which meets the limitation of plural link terminals, and a mobile terminal (Col. 5, lines 19-25). Authentication of the mobile terminal during handover is achieved by a challenge/response procedure involving authentication keys for both ends of the communication pair that are generated by a key

management protocol, which meets the limitation of logic at at least one local link terminal for generating the shared secret. Security associations are also used during the authentication and communication process to avoid the need for a new and different key exchange during each handover (Col. 5, lines 43-50). The system also includes a security protocol that uses a session-dependent dynamic key that is included as a part of the active security associations (Col. 4, lines 56-62), which meets the limitation of receiving IP packets therefrom in respective sessions, at least some IP packets being associated with information unique to the session, each session being associated with a unique shared secret between a client device and a link terminal communicating therewith, the information being useful in providing data from the application component in IP packet format from the NOC to a client device moving relative to the link terminals by providing at least one IP packetized data stream to the client device using a first link terminal and then continuing to provide the data stream to the client device from a second link terminal as the client device movies. Ali-Laurila does not disclose using session names in the communication. Demoff discloses a wireless credit authorization system wherein unique session ID's, which meet the limitation of a session name, are used by the client devices to conduct secure transactions (Col. 5, line 62 – Col. 6, line 17). It would have been obvious to one of ordinary skill in the art at the time the invention was made use session ID's in the IP based wireless network of Ali-Laurila in order to prevent fraudulent use of the wireless system as taught in Demoff (Col. 6, lines 10-17).

Referring to claim 12, Ali-Laurila discloses a data transmission rate of typically 25 megabytes per second (Col. 1, lines 58-59).

Referring to claim 17, Ali-Laurila discloses in Fig. 1 that the mobile devices have an antenna and transceiver (Col. 6, lines 52-54).

Claims 11, 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ali-Laurila, U.S. Patent No. 6,587,680, in view of Demoff, U.S. Patent No. 6,456,984 as applied to claim 10 above, and further in view of Rautila, U.S. Patent No. 6,549,625. Referring to claims 11, 16, Ali-Laurila discloses an IP based wireless network using IPSEC level security between wireless terminals, which meets the limitation of plural client devices and an application component, and network elements (Col. 5, lines 7-14). The system provides an efficient method for re-establishing an existing security association when a handover event occurs between a new access point, which meets the limitation of plural link terminals, and a mobile terminal (Col. 5, lines 19-25). Authentication of the mobile terminal during handover is achieved by a challenge/response procedure involving authentication keys for both ends of the communication pair that are generated by a key management protocol, which meets the limitation of logic at at least one local link terminal for generating the shared secret. Security associations are also used during the authentication and communication process to avoid the need for a new and different key exchange during each handover (Col. 5, lines 43-50). The system also includes a security protocol that uses a session-dependent dynamic key that is included as a part of the active security associations (Col. 4, lines 56-62), which meets the limitation of receiving IP packets therefrom in respective sessions, at least some IP packets being associated with information unique to the session, each session being associated with a unique shared secret between a client device and a link terminal communicating therewith, the information being useful in providing data from the application component in IP packet format from the NOC to a client device

moving relative to the link terminals by providing at least one IP packetized data stream to the client device using a first link terminal and then continuing to provide the data stream to the client device from a second link terminal as the client device movies. Demoff discloses a wireless credit authorization system wherein unique session ID's, which meet the limitation of a session name, are used by the client devices to conduct secure transactions (Col. 5, line 62 – Col. 6, line 17). Ali-Laurila does not disclose location based services being provided by the system. Rautila discloses a wireless communication system wherein location based services are provided to a wireless terminal or device (Col. 2, lines 13-18). It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide location based services in the wireless network of Ali-Laurila in order to provide subscribers with important information about their current location as taught in Rautila (Col. 1, line 34-65).

Claims 26, 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ali-Laurila, U.S. Patent No. 6,587,680, in view of Ladue, U.S. Patent No. 6,070,070. Referring to claims 26, 27, Ali-Laurila discloses an IP based wireless network using IPSEC level security between wireless terminals, which meets the limitation of plural client devices and an application component, and network elements (Col. 5, lines 7-14). The system provides an efficient method for re-establishing an existing security association when a handover event occurs between a new access point, which meets the limitation of plural link terminals, and a mobile terminal (Col. 5, lines 19-25). Authentication of the mobile terminal during handover is achieved by a challenge/response procedure involving authentication keys for both ends of the communication pair that are generated by a key management protocol, which meets the limitation of logic at at least one local link terminal for generating the shared secret. Security associations are also used

during the authentication and communication process to avoid the need for a new and different key exchange during each handover (Col. 5, lines 43-50). The system also includes a security protocol that uses a session-dependent dynamic key that is included as a part of the active security associations (Col. 4, lines 56-62), which meets the limitation of receiving IP packets therefrom in respective sessions, at least some IP packets being associated with information unique to the session, each session being associated with a unique shared secret between a client device and a link terminal communicating therewith, the information being useful in providing data from the application component in IP packet format from the NOC to a client device moving relative to the link terminals by providing at least one IP packetized data stream to the client device using a first link terminal and then continuing to provide the data stream to the client device from a second link terminal as the client device movies. Ali-Laurila does not disclose using accounting procedures to bill the user for the amount of packets provided. Ladue discloses a cellular phone switching system wherein the billing information is measured by the amount of packets transmitted (Col. 25, line 66 – Col. 26, line 34). It would have been obvious to one of ordinary skill in the art at the time the invention was made to use the accounting procedures of Ladue in the IP based wireless network of Ali-Laurila in order to provide anti-fraud protection as taught in Ladue (Col. 26, lines 39-44).

Claims 28-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ali-Laurila, U.S. Patent No. 6,587,680, in view of Demoff, U.S. Patent No. 6,456,984 as applied to claims 4, 10 above, and further in view of Ladue, U.S. Patent No. 6,070,070. Referring to claims 28-30, Ali-Laurila discloses an IP based wireless network using IPSEC level security between wireless terminals, which meets the limitation of plural client devices and an application component, and

network elements (Col. 5, lines 7-14). The system provides an efficient method for re-establishing an existing security association when a handover event occurs between a new access point, which meets the limitation of plural link terminals, and a mobile terminal (Col. 5, lines 19-25). Authentication of the mobile terminal during handover is achieved by a challenge/response procedure involving authentication keys for both ends of the communication pair that are generated by a key management protocol, which meets the limitation of logic at at least one local link terminal for generating the shared secret. Security associations are also used during the authentication and communication process to avoid the need for a new and different key exchange during each handover (Col. 5, lines 43-50). The system also includes a security protocol that uses a session-dependent dynamic key that is included as a part of the active security associations (Col. 4, lines 56-62), which meets the limitation of receiving IP packets therefrom in respective sessions, at least some IP packets being associated with information unique to the session, each session being associated with a unique shared secret between a client device and a link terminal communicating therewith, the information being useful in providing data from the application component in IP packet format from the NOC to a client device moving relative to the link terminals by providing at least one IP packetized data stream to the client device using a first link terminal and then continuing to provide the data stream to the client device from a second link terminal as the client device movies. Demoff discloses a wireless credit authorization system wherein unique session ID's, which meet the limitation of a session name, are used by the client devices to conduct secure transactions (Col. 5, line 62 – Col. 6, line 17). Ali-Laurila does not disclose using accounting procedures to bill the user for the amount of packets provided. Ladue discloses a cellular phone switching system wherein the

billing information is measured by the amount of packets transmitted (Col. 25, line 66 – Col. 26, line 34). It would have been obvious to one of ordinary skill in the art at the time the invention was made to use the accounting procedures of Ladue in the IP based wireless network of Ali-Laurila in order to provide anti-fraud protection as taught in Ladue (Col. 26, lines 39-44).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Benjamin E Lanier whose telephone number is 703-305-7684. The examiner can normally be reached on M-Th0 7:30am-5:00pm, F 7:30am-4pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gilberto Barron can be reached on (703)305-1830. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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